

Ebony boghaunter

Williamsonia fletcheri

Status

Federal status: G3G4 N3N4

NH state status: SU, Not listed

ME state status: S3?, Special Concern

Local experts provided input through e-mail and letters instead of a panel. They agree that current habitat and population conditions are declining and that *Williamsonia fletcheri* should be protected and listed as a species of special concern, but outcomes were not given. Population trends are unknown, but habitat declined in quantity and quality in the past, and continues to decline in some areas, so it is likely that population levels have declined historically and may still be declining.

Distribution

The species is known from southern Manitoba to New Brunswick, south to Maine, Massachusetts, New York, Wisconsin, and Michigan.

Odonates are known to be under-represented in the NHNHI database. Another source documents *Williamsonia fletcheri* in Passaconaway, NH in the WMNF. This is the only documented occurrence in New Hampshire, though it probably occurs elsewhere. In Maine, this species is known from Fryeburg, Brownfield, Alfred, Waterboro, Shapleigh, Buxton, Bar Harbor, Magalloway PLT, Sebec, and Lincoln Tract. None of these occurrences is on the WMNF.

Habitat

Williamsonia fletcheri breeds in low elevation sphagnum bogs adjacent to coniferous or mixed coniferous/deciduous forest. It is usually absent from bogs that lack sphagnum. Larvae may develop in shallow pools (6" to 12") in sedge fens or among sphagnum mats that have open pools and are not choked with heaths. The adult male territorial arenas and adult perching sites are often in small, sun-lit clearings in the forest surrounding the laying habitat, not in completely open upland habitat. How far adults travel from their breeding habitat is unknown.

Limiting Factors

Loss of habitat is the major threat. Harvesting of peat moss and fuel peat, cranberry farming, and water level alteration all threaten the preferred habitat of this species. Agriculture, chemical contamination, and development have also reduced habitat quantity and quality.

Fragmentation and forest clearing may hurt species viability given the preference of adults for small clearings within forest habitat.

Availability of breeding habitat with the microclimate conditions needed for larval development may be limiting this species' distribution, because it does not occur in all Sphagnum bog habitats. However what those microclimate requirements are is unknown.

Viability concern

Global and national rankings indicate a range-wide concern. Experts agreed that this species should be protected and listed as a species of viability concern, so no surrogate was identified. It was documented on the WMNF in the 1970s and nothing indicates that it has been extirpated. Additional surveys would be needed to determine its status on the Forest. Management could affect habitat.

Management activities that might affect viability

Of the habitat related threats impacting this species, water level fluctuation is the one that might relate to WMNF management. Dam construction or removal, beaver dam removal, encouraging beaver activity, and road and trail construction all could affect water levels if done near to suitable bog or fen habitat. Development of recreational facilities on or through a suitable wetland could alter habitat suitability depending on the type of development.

It is unknown whether fragmentation and regeneration harvest adjacent to suitable breeding habitat would impact adult survival or breeding success. If an area that is currently used by adults is clearcut or otherwise cleared, that could impact suitability of the forest habitat and impact their use of the adjacent breeding habitat.

References

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